

ABSTRACT

A sulfur atom-free enzyme protein retaining the activity of the original enzyme protein and having oxidation resistance wherein L-cystein and L-methionine residues of the enzyme protein are substituted with 18 types of L-amino acid residues: L-alanine; L-aspartic acid; L-glutamic acid; L-phenylalanine; L-glycine; L-histidine; L-isoleucine; L-lysine; L-leucine; L-asparagine; L-proline; L-glutamine; L-arginine; L-serine; L-threonine; L-valine; L-tyrosine; and L-tryptophan. A enzyme protein retaining the activity of the wild type enzyme while having antioxidation properties against oxidation by hydrogen peroxide, and the like and a process for producing the same.